WHAT IS CLAIMED IS:

1. A method for calibrating a propagation delay in a network trunk comprising the steps of:

(a) providing a counter in each of first and second network switches in a network switch system;

(b) each counter calculating a time period Ti from sending a marker in the first network switch until receiving a trunk package acknowledgement marker from the second network switch and a time period Tt from receiving the trunk package and the marker in the second network switch until generating an acknowledgement marker containing the trunk package;

(c) commanding the second network switch to append the time period Tt to the acknowledgement marker prior to sending the acknowledge marker back to the first network switch;

(d) reading out the time gap Tt after the first network switch has received the acknowledgement marker; and

(e) calculating a time delay Tx by an equation Tx=(Ti-Tt)/2 wherein the time dealy Tx is caused by sending the trunk package on each channel between the first and the second network switches.

2. The method of claim 1, wherein the second network switch is operable to decode the received trunk package for calibrating the propagation delay based on the time delay Tx in order to determine a time gap between the packages in the same channel, thereby obtaining a correct data stream from the trunk package.

3. The method of claim 1, wherein each node n in the interconnected first and second network switches is operable to generate a marker in the first network switch and an acknowledgement marker in the second network switch through a transmitter and a receiver therein respectively, whereby, the node in the first

network switch is capable of performing a communication of transmitting and receiving the package with respect to the node in the second network switch.

4. The method of claim 3, further comprising a register in each of the first and second network switches for recording the propagation delay caused by a line corresponding to the node in each of the first and second network switches.

5. The method of claim 4, wherein the maximum propagation delay Tmax occurred in the line by both the first and second network switches is set as base for calibrating the internal propagation delay, whereby derive an equation Ts(n)=Tmax-Tx(n) by utilizing the Tmax where Tx(n) is propagation delay of the line corresponding to each node n and obtain a calibration value of the propagation delay Ts(n).

6. The method of claim 5, wherein each of the first and second network switches decodes each received data package based on the calibration value of the propagation delay Ts(n) for calibrating the propagation delay caused by the line corresponding to the node in each of the first and second network switches, whereby determine a time gap Ts between the packages in the same channel and obtain the correct data stream.

Marker PDU	Octets	Marker Response PDU
Destination Address	6	Destination Address
Source Address	6	Source Address
Length/Type	2	Length/Type
Subtype= Marker	1	Subtype=Marker
Verslon Number	1	Version Number
TLV_type= Marker Information	1	TLV_type=Marker Response Information
Marker_Information_Length=16	1	Marker_Response_Information_Length=16
Requester_Port	2	Requester_Port
Requester_System	6	Requester_System
Requester_Transaction_ID	4	Requester_Transaction_ID
Pad=0	2	Pad=0
TLV_type=Terminator	1	TLV_type=Terminator
Terminator_Length= φ	1	Terminator_Length=0
	1	
Clock_Counter=0	2	Clock_Counter=n
RESERVED	88	RESERVED
FCS	4	FCS

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